

Interconnected Voice over Internet Protocol 911 Compliance Letter

WC Docket No. 05-196

Spectrum Telecom
6 Bonnie Circle
Bella Vista, AR 72714

Background

Spectrum Telecom is a Wireless Internet Service Provider in Northwest Arkansas providing high speed internet service and VoIP service to customers in the towns of Bentonville, Fayetteville, Lowell, Centerton and Rogers. Internet service is provided over wireless links using 2.4 GHz and 900 MHz unlicensed frequencies. VoIP service is provided to a subset of Spectrum's customers. Currently Spectrum Telecom has approximately 165 internet customers. However, not all of these customers use Spectrum's VoIP service. Spectrum has 21 VoIP customers. Two VoIP customers are in Centerton, 1 in Rogers, and the rest of the VoIP customers are in Lowell, AR.

VoIP Network Overview

Spectrum Telecom is a retail provider of VoIP services. Spectrum uses BinFone, a wholesale provider of VoIP, for all VoIP services including E911. BinFone is a small wholesale VoIP provider based in Maryland (<http://www.binfone.com/>). They operate SIP based VoIP Softswitches and Gateways based in two data centers located in Maryland and Virginia. BinFone uses a variety of larger wholesale service providers for national and international voice services. One of their major service providers was KMC, however, in October KMC notified BinFone that it was getting out of the VoIP wholesale business and dropping BinFone and Spectrum as customers. Currently BinFone is planning on migrating all Spectrum Telecom's customers in North West Arkansas to Level 3. This migration is expected to be complete by the end of December 2005.

As a result of KMC dropping BinFone, the plans for both VoIP service and E911 service in North West Arkansas needed to be revised at the last minute.

This has resulted in a delay in Spectrum Telecom's plans for E911 service in North West Arkansas. Our current approach to E911 service and our timeline for implementing this service is specified in the following sections of this letter.

E911 Solution

Spectrum Telecom and BinFone plan to migrate all customers in North West Arkansas from KMC to Level 3 by the end of December 2005. For customers located in all the towns served in North West Arkansas *except Rogers*, E911 service will be delivered using the Level 3 network. There are 20 customers that will be served by the Level 3 E911 service in North West Arkansas. In Rogers there is currently one customer that will be served by Level 3, however, this customer (and future customers in Rogers) will require a different E911 solution. Both these solutions are described in the following subsections.

Level 3 E911

Customers in all towns *except Rogers* will be served using Level 3's E911 network. The E911 call flow is depicted in Figure 1. All Spectrum customers use telephones that are connected to Sipura VoIP ATA's. The ATA then connects to the Spectrum wireless network using a CPE device at the customer site. When a customer dials E911 the call is converted to VoIP at the ATA and routed across the Spectrum wireless network to the internet. The call is then routed across the internet to one of BinFone's SIP Redirect Servers. At that point the call is routed to a BinFone SIP aggregation server where SIP signaling is carried out by the BinFone Softswitch. From the Aggregation server the call is routed to a Level 3 reseller 9 (PCCW or Centric Voice) and forwarded on to Level 3's IP network. Level 3 then routes the VoIP call to it's E911 Gateway in North West Arkansas where the call is then routed to an SBC Selective Router. The SBC Selective router then routes the call to the appropriate PSAP. Level 3 passes ANI information to SBC and SBC manages the ALI database so that full name and address information is passed to the emergency operators at the PSAP. It is expected that Level 3 E911 service will be available to all towns (except Rogers) in Spectrum's current territory by January 2006.

E911 Call Flow for North West Arkansas

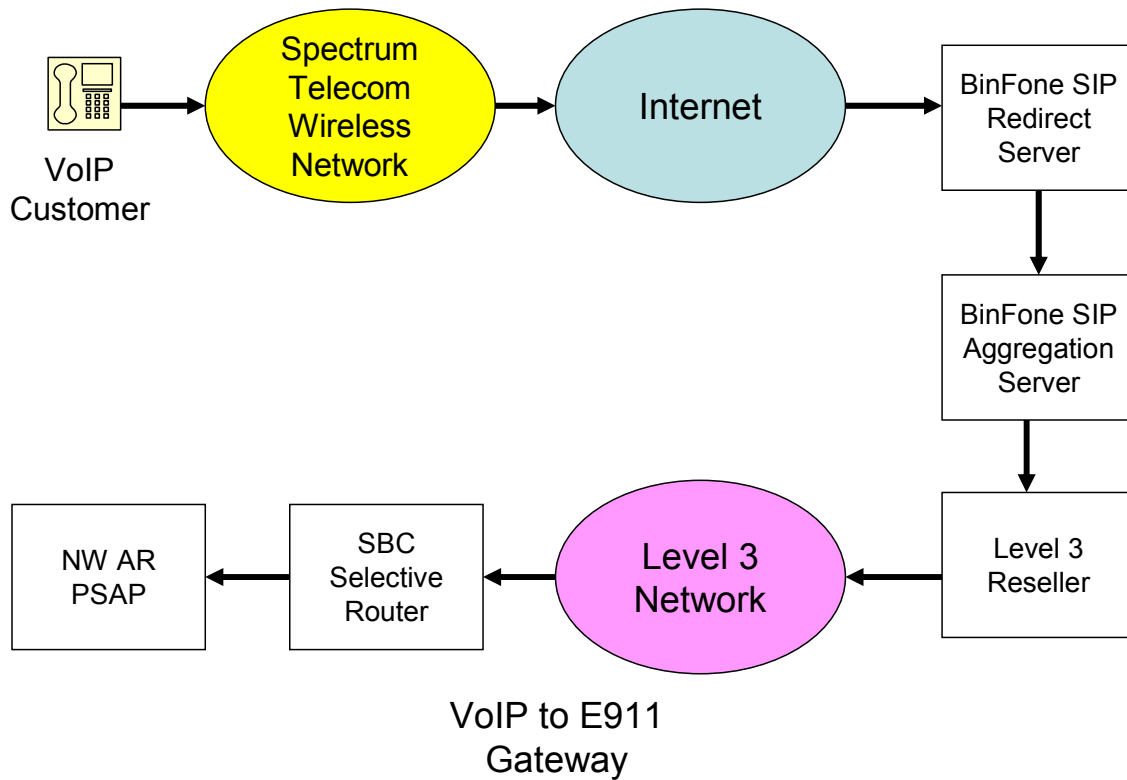


Figure 1

E911 Service in Rogers, AR

In Rogers, AR Level 3 will provide VoIP service but they do not have the capability to route 911 calls to the SBC selective router. Therefore, in Rogers Spectrum will use an alternate approach to providing E911 service. The E911 call flow for Rogers is depicted in Figure 2. When a Spectrum customer dials E911 their call is converted to VoIP by the ATA and routed across the Spectrum wireless network and internet to BinFone's SIP Redirect Server. At that point the call is routed to a BinFone Aggregation Server where it is routed across the internet to a BinFone E911 gateway that is collocated in Spectrum Telecom's facility. The E911 gateway then routes the call to SBC's Selective Router where it is then routed to the PSAP. All ANI information is passed to the SBC Selective Router and SBC will maintain ALI information in their database such that the name and address of the caller will be displayed to the emergency operator at the PSAP. It is expected that E911 service will be available in Rogers by February 2006.

E911 Call Flow for Rogers Arkansas

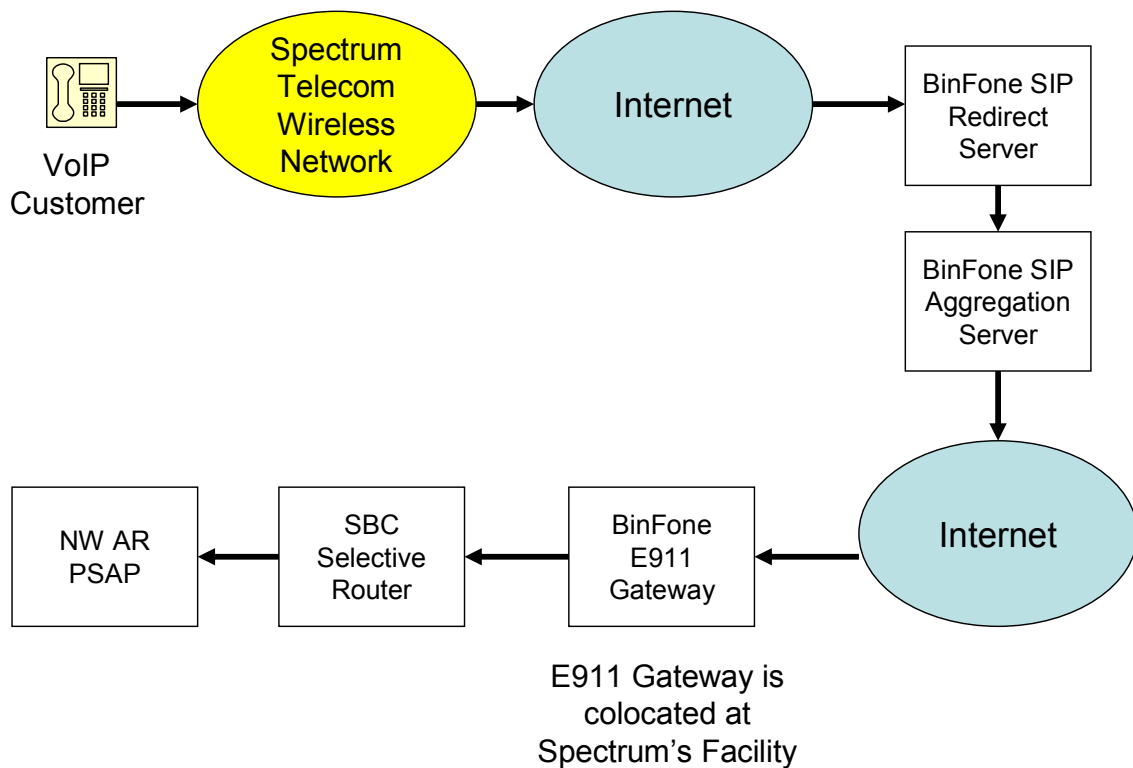


Figure 2

Registered Location Information

Spectrum Telecom has a very small number of VoIP customers. Therefore Spectrum already knows all the registered locations of each customer. Spectrum is planning on sending both an email and written letter by November 28, 2005 to each customer to confirm their location information.

Obtaining Updated Location Information

Spectrum currently maintains a 24X7 call center where customers can call to update their location information. Currently, Spectrum only provides VoIP service in North West Arkansas, and therefore if a customer is relocating or traveling to an area that is out of Spectrum's service area our customer support team will tell the customer that service and E911 is not available in this area. If a customer updates their location information BinFone will update the ALI database information in SBC's E911 network.

Summary

Spectrum Telecom is committed to offering E911 service in all areas where we offer VoIP service. However, due to the *unexpected termination of KMC's VoIP service and plans for KMC E911 service*, our schedule for offering E911 has been delayed. We are moving quickly to migrate to Level 3's network and we fully intend to offer E911 service to all of our customers.